

**CRF Errors Edited by the STIC Systems
Branch**

Per/10

1/

2

Serial Number: 10/510,021

CRF Edit Date: 10/12/04
Edited by: h

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

ENTERED

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:



PCT10

RAW SEQUENCE LISTING

DATE: 10/12/2004

PATENT APPLICATION: US/10/510,021

TIME: 16:42:35

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\10122004\J510021.raw

```

3 <110> APPLICANT: Cole, Stewart
4     Pym, Alexander S
5     Brosch, Roland
6     Brodin, Priscille
7     Majlessi, Laleh
8     Demangel, Caroline
9     Leclerc, Claude
11 <120> TITLE OF INVENTION: Identification of virulence associated regions RD1 and
12     RD5 leading to improve vaccine of M. bovis BCG and M.
13     microti
15 <130> FILE REFERENCE: D20217
C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/510,021
C--> 17 <141> CURRENT FILING DATE: 2004-10-01
17 <150> PRIOR APPLICATION NUMBER: PCT/IB03/01789
18 <151> PRIOR FILING DATE: 2003-04-01
20 <150> PRIOR APPLICATION NUMBER: EP 02/290864
21 <151> PRIOR FILING DATE: 2002-04-05
23 <160> NUMBER OF SEQ ID NOS: 75
25 <170> SOFTWARE: PatentIn Ver. 2.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 31808
29 <212> TYPE: DNA
30 <213> ORGANISM: Mycobacterium tuberculosis
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Insert of cosmid RD1-2F9 corresponding to sequence
34     in the genome of mycobacterium tuberculosis H37Rv
36 <400> SEQUENCE: 1
37 gatccgacca caccagcccg gcaccccgcg gggatactcg ccccgctccgc cgtccggaga 60
38 tcgctgcccc gcgccaccgc ctggccggca cgtgctgcc gctacgccac cagggccgcc 120
39 gcgcctgcct tcagctccac tgcgtccatt gccggaccgc gcttggccac gccagccgga 180
40 ggccccgcca ccgagcacct gggccgaccc cgccctggcg ccgatacgca gtcggacgcg 240
41 acccggcgag cgtggttggc gacgcattgt gcgctggtc acctttggcc ttgtcggcct 300
42 gggccggctc ggcatgcagc gccaggaggc ccaattcgaa gcaacgatac gaaccgtcct 360
43 gcatggcaac cacaaggtcg ccgtgctggg caaaggaggt gtgggaaaga cgtcggttgc 420
44 ggcgtgcgtc ggatcgatcc ttgccgaact gcgccagcag gaccgatcgc tcgggatcga 480
45 cgccgacacc gccttcggca ggctgagcag ccgaatcgat cctcgagcag ctggttcggt 540
46 ctgggagctg accaccgaca cgaatctgcg gtccttcacc gatatcacc cgcgccgggt 600
47 ccgaaattcc gcgggactgt acgtcctggc aggccagccg gcatccggtc cgcgccgggt 660
48 gtcgatcccg gccatctacc gcgaagccgc cctaagggtg gatcaccatt tcgcaatctc 720
49 ggtgatcgac tgcggttcct ccatggaggc ggcggtcacc caggaagtat tgcgcatgt 780
50 ggatgctctg atcgtggtgt cctcgccctg ggcggtatgt gcctccgctg ccgccaacac 840
51 catcgaatgg ctgtcggatt atggcctgac aggtttgttg cgacgcagca tcgtggtgct 900
52 caacgattcg gacggacacg ccgacaagcg caccaagtca ttgctggccc aggaattcat 960

```

RAW SEQUENCE LISTING

DATE: 10/12/2004

PATENT APPLICATION: US/10/510,021

TIME: 16:42:35

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\10122004\J510021.raw

```

53 cgaccacggg cagcctgtgg tcgaggtgcc cttcgatccc catttgccgc ccgggggggt 1020
54 catcgatatg agccacgaaa tggccccgac gacgcggctg aaaatcctgc aggtcgccgc 1080
55 gacggtgacg gcgtaacttcg cgtcgcgacc cgcgcagca cagggcagcc cggccccgtg 1140
56 acctggctgg ctgacccggg cggcaacagc aggatcgccc gagcgcaggg ctgcaaaacg 1200
57 tcaatctcgg cggccatcgt cgaatcctgg cgggcgcaac gcggcgcgca atgtggacag 1260
58 cgcgagaaat cttgtcgatg ttctcgcgct gtccacatcc agggcatctc accgccactg 1320
59 ttccgcagac cctcgaacc agcgggtccag gcggcgggtg cgtcatgccg attgggcaga 1380
60 caccgggtgg tcgcgcaccg ggtaaccgtt gcgctcggcc agggatcgca gctggcccaa 1440
61 cgcgaatgcc cgcgcgcggc ctgattcggg aattacgacc cctgcccaca gcccttccgc 1500
62 accgcgggac tcgacggcgt cgcgtgcaca cagccaccgg cgcgggcaag cccggcacag 1560
63 ggtcttggcc tcgtcgtcgg gagtcgtcgt ccaacgatcg ggatcttgcg tgcaaacgcc 1620
64 gagcggggacc tcatacaggg cggttactgt catgtctacg ttctccaga aagcgttgca 1680
65 ggttgtagcc tctgcccgca aagcgtatcg cattaaccat agcgtgcaa cagtttctc 1740
66 ctctgcctgc ctacgcgtgc tgcggtccg gttcggcgag ctccgagctc tagtgccgc 1800
67 accgccgagt accagggcat agatcctgtt aatcagctgt gtatctggcc tcgccggcgc 1860
68 gtatccgacc ccttcgggca gatcttccag gaaaagtgtt ctgacatgcg acagttcagg 1920
69 tgtgaagtga actgtagcgg cagttcgggt tggctaggaa actatttcca tagcgggccc 1980
70 tcgcgtcgtc agatccaaaa tgtagcgaag tcatagcagt agaagggtgc aacggttagg 2040
71 atggcggggc agcggaaaagt ctgccaccg tcccggctag taccgcgaa taagggatca 2100
72 acgcagatgt ctaaagcagg gtcgactgtc ggaccggcgc cgtcggtcgc gtgcagcggc 2160
73 ggcacatcag acgtgattga gcccgcgcg ggtgtcgcga tcattggcca ctcgtgccga 2220
74 gtcggcacc agatcgacga ttctcgaatc tctcagacac atctgcgagc ggtatccgat 2280
75 gatggacggt ggcggatcgt cggcaacatc ccgagaggta tgttcgtcgg cggacgacgc 2340
76 ggcagctcgg tgaccgtcag cgataagacc ctaatccgat tcggcgatcc ccctggaggc 2400
77 aaggcgttga cgttcgaagt cgtcaggccg tcggattccg ctgcacagca cggccgcgta 2460
78 caaccatcag cggacctgtc ggacgaccgc gcgcacaacg ctgcgcgggt cgcaccggac 2520
79 cccggcgtgg ttgcgcgagg ggcggccgcg gctgcgcgcc gtcgtgaact tgacatcagc 2580
80 caacgcagct tggcggccga cgggatcctc aacgcggggc cgtcatcgc gttcgagaaa 2640
81 ggccgtagtt ggcggcgga acggaccggc gcaaaactcg aagaagtgt gcagtggccc 2700
82 gctggaacca tcgcgcgaat ccgtcggggc gagcccaccg agcccgaac aaaccccgac 2760
83 gcgtcccccg gactccggcc tgccgacggc ccggcgctct tgatcgcgca ggctgtcacc 2820
84 gccgcgtag acggtgcag tctggctatc gcagcgttgc cggcgaccga ggaccccgag 2880
85 ttaccgaac gtgcgcgcgc gatccttgcg gatttgcgcc agctcgaggc gattgccgtc 2940
86 caagcaacc gcacagccg gattaccccg gaattgatca aggcgttggg cgcggtacgt 3000
87 cgccaccacg acgaattaat gaggtcggga gcaaccgcc ctggtgccac actggcgag 3060
88 cgcttatatg ccgcacggcg gcgcgcgaac ctttccaccc tggagactgc ccaagcggcc 3120
89 ggcgtcgcag aagaaatgat cgtcggcgcc gaagccgagg aagagttgcc agccgaggcc 3180
90 accgaagcga tcgaagcact gatccgtcag atcaattgag gtcggctccg agcgtcccac 3240
91 aagtacaggc acgcgtaac gctcaagttc aacggtccgg ggaacgcgcg cgttctccgg 3300
92 cgtttgacgg tcggttccat cgtgccgcga acttgaaaac gccagcgtca ccaaaaaatt 3360
93 cgtgcaccaa cccccctccg agcgtgcta agctcaatgt gcagtcaaa ggtgcagata 3420
94 atgatggcgc accggaacgg cgagcgtaag gaaacacata aatggcatcg ggtagcggtc 3480
95 tttgcaagac gacgagtaac ttatttggg gccagttact cttgcttggg gagggaaatc 3540
96 ccgaccagc cgacattttc aacaccgggt cgtcgtcgtt caaacaatc agcgacaaaa 3600
97 tgggactcgc cattccgggc accaactgga tcggccaagc ggcggaagct tacctaaacc 3660
98 agaacatcgc gcaacaactt cgcgcacagg tgatgggcga tctcgacaaa ttaaccggca 3720
99 acatgatctc gaatcaggcc aaatacgtct ccgatacgcg cgacgtcctg cgggccatga 3780
100 agaagatgat tgacgggtgc tacaagggtt gtaagggcct cgaaaagatt ccgctgctcg 3840
101 gccacttgtg gtcgtgggag ctgcgaatcc ctatgtccgg catcgcgatg gccgttgtcg 3900

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,021

DATE: 10/12/2004

TIME: 16:42:35

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\10122004\J510021.raw

```

102 gcgggcgatt gctctatcta acgattatga cgctgatgaa tgcgaccaac ctgaggggaa 3960
103 ttctcggcag gctgatcgag atgttgacga ccttgccaaa gttccccggc ctgccccggg 4020
104 tgcccagcct gcccagacatc atcgacggcc tctggccgcc gaagttgccc gacattccga 4080
105 tccccggcct gcccagacatc ccgggectac ccgacttcaa atggccgccc acccccggca 4140
106 gcccgttggt ccccagacctc cgtcgcttcc cagggttccc cgggttcccc gagttccccg 4200
107 ccatccccgg gttccccgca ctgcccgggt tgcccagcat tcccaacttg ttccccggct 4260
108 tgccgggtct gggcgacctg ctgcccggcg taggcgattt gggcaagtta cccacctgga 4320
109 ctgagctggc cgttttgctt gacttcttgg gcggcttcgc cggcctgccc agcttggtt 4380
110 ttggcaatct gctcagcttt gccagtttgc ccaccgtggg tcaggtgacc gccaccatgg 4440
111 gtcagctgca acagctcgtg gcgccggcg gtggccccag ccaactggcc agcatgggca 4500
112 gccacaagc gcaactgatc tcgtcgagg cccagcaagg aggcagcag cacgccacc 4560
113 tcgtgagcga caagaaggaa gacgaggaag gcgtggccga ggcgagcgt gcaccatcg 4620
114 acgctggcac cgcggccagc caacgggggc aggaggggac cgtcctttga tcggacaccg 4680
115 agtcgccagc aggtctgtgc catagcgagt cgaagccata gcgagtagaa agttaaacgt 4740
116 agaggagggt tcaacccatg accggatttc tcggtgtcgt gccttcgttc ctgaagggtg 4800
117 tggcgggcat gcacaacgag atcgtgggtg atatcaaaag ggcgaccgat acggtcgccg 4860
118 ggattagcgg acgagttcag cttaccatg gttcgttcac gtcgaaattc aatgacacgc 4920
119 tgcaagagtt tgagaccacc cgtagcagca cgggcacggg tttgcaggga gtcaccagcg 4980
120 gactggccaa taatctgctc gcagccgcgc gcgcctacct caaggccgac gatggcctag 5040
121 ccggtgttat cgacaagatt ttcggttgat catgacgggt ccgtccgctg caggccgcgc 5100
122 gggcacgcgc gacaacgtgg tcggcgtcga ggtaaccatc gacggcatgt tgggtgatcg 5160
123 cgatcggtta cacctggttg atttcctgt cactctggg attcggccga atatcccga 5220
124 agaggatctg cgagacatcg tctgggaaca ggtgcagcgt gacctcacag cgcaaggggt 5280
125 gctcgacctc cacggggagc cccaaccgac ggtcgcgagg atggtcgaaa ccctgggcag 5340
126 gccagatcgg accttgagg gtcgctggtg gcggcgcgac attggcgggc tcatggtgcg 5400
127 ctctcgtcgt tgccgcaggg gcgaccgcca tgtgatcgcg gcgcgcgacg gcgacatgct 5460
128 ggtgctgcag ttggtggcg cgaggtcgg cttggcgggc atggtgacag cgggtgctgg 5520
129 gcccgcgcaa ccgcgcaacg tcgaaccctt gacgggtgtg gcaaccgagc tagccgaatg 5580
130 cacaaccgcg tcccaattga cgcaatacgg tatcgaccg gcccgccac gccaccccg 5640
131 cgagatcgtg ggttaaccga ccggctgggt ggagatcgt gccagccaac gccaccccg 5700
132 cggcaccacg acgcagaccg acgcgcgcgc tggcgtcctg gactccaagc tcggtaggct 5760
133 ggtgtcgctt ccccgccgtg ttggaggcga cctgtacgga agcttcctgc ccggcactca 5820
134 gcagaacttg gagcgtgcgc tggacggctt gctagagctg ctccctgagg gcgcttggt 5880
135 agatcacacc tcagatcacg cacaagcctc ctcccgaggc tgacctctca catctccgt 5940
136 acgacttcag aaagggagcg catggtggac ccgcgggca acgacgacga ccacggtgat 6000
137 ctcgacgccc tcgatttctc cgccgcccac accaaccagg cgtcgccgct ggacgcctta 6060
138 gacgactatg cgccggtgca gaccgatgac gccgaaggcg acctggacgc cctccatgcg 6120
139 ctaccgaac gcgacgagga gccggagctg gagttgttca cggtgaccaa ccctcaagg 6180
140 tcggtgtcgg tctcaacct gatggacggc agaatccagc acgtcgagct gacggacaag 6240
141 gcgaccagca tgtccgaagc gcagctggcc gacgagatct tcgttattgc cgatctggcc 6300
142 cgccaaaagg cgcggggcgtc gcagtacacg ttcattggtg agaacatcgg tgaactgacc 6360
143 gacgaagacg cagaaggcag cgccctgctg cgggaattcg tggggatgac cctgaatctg 6420
144 ccgacgcccg aagaggctgc cgcagccgaa gccgaagtgt tcgccaccg ctacagtgct 6480
145 gactacacct cccggtacaa ggccgatgac tgatcgcttg gccagtctgt tcgaaagcgc 6540
146 cgtcagcatg ttgccgatgt cggaggcgcg gtcgctagat ctgttcaccg agatcaccaa 6600
147 ctacgacgaa tccgcttgcg acgcatggat cggccggatc cgggtggtgg acaccgaccg 6660
148 ggtgacgctg tttcgcgctt ggtattcgcg ccgaatttc ggacagttgt cgggatcggt 6720
149 ccagatctcg atgagcacgt taaacgccag gattgccatc ggggggctgt acggcgatat 6780
150 cacctaccgc gtcacctcgc cgctagcgat caccatgggc tttgccgcat gcgaggcagc 6840

```

RAW SEQUENCE LISTING

DATE: 10/12/2004

PATENT APPLICATION: US/10/510,021

TIME: 16:42:35

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\10122004\J510021.raw

```

151 gcaaggcaat tacgccgacg ccatggagggc cttagaggcc gccccggctcg cgggttccga 6900
152 gcacctggtg gcgtggatga aggcgggtgt ctacggcgcg gccgaacgct ggaccgacgt 6960
153 gatcgaccag gtcaagagtg ctgggaaatg gccggacaag tttttggccg gcgcggccgg 7020
154 tgtggcgcac ggggttgccg cggcaaacct ggcttgttc accgaagccg aacgccgact 7080
155 caccgaggcc aacgactcgc ccgccggtga ggctgtgtcg cgcgccatcg cctggtatct 7140
156 ggcgatggca cggcgagcc agggcaacga aagcgccgcg gtggcgctgc tggaatggtt 7200
157 acagaccact caccgagc ccaaagtggc tgcggcgctg aaggatccct cctaccggct 7260
158 gaagacgacc accgccgaac agatcgcatc ccgcgccgat ccctgggatc cgggcagtgt 7320
159 cgtgaccgac aactccggcc gggagcggct gtcgccgag gcccaagccg aactcgaccg 7380
160 ccaaattggg ctacccggg ttaaaaatca gattgaacgc taccgcgagg cgacgctgat 7440
161 gggccgggtc cgcgccgcca agggatgaa ggtcgccag cccagcaagc acatgatctt 7500
162 caccggaccg ccgggtaccg gcaagaccac gatcgcgcg gtggtggcca atatcctggc 7560
163 cggttaggc gtcatgccc aacccaaact cgtcgagacg tcgcgcaagg acttcgtcgc 7620
164 cgagtacgag gggcaatcgg cggtaagac cgctaagacg atcgatcagg cgctggcgcg 7680
165 ggtgcttttc atcgacgagg cttatgcgct ggtgcaggaa agagacggcc gcaccgatcc 7740
166 gttcgggtcaa gaggcgctgg acacgctgct ggcgcggatg gagaacgacc gggaccggct 7800
167 ggtggtgatc atcgccgggt acagctccga catagatcgg ctgctggaaa ccaacgaggg 7860
168 tctgcggtcg cggttcgcca ctgcgcatcg gttcgacacc tattcccccg aggaactcct 7920
169 cgagatcgcc aacgtcattg ccgctgctga tgattcggcg ttgaccgagc aggcggccga 7980
170 gaactttctt caggccgcca agcagttgga gcagcgcatg ttgcgcggcc ggcgcgccct 8040
171 ggacgtcgcc ggcaacggtc ggtatgcgcg ccagctggtg gaggccagcg agcaatgccg 8100
172 ggacatgctg ctagcccagg tctcgatat cgacaccctc gacgaagacc ggcttcgcga 8160
173 gatcaacggc tcagatatgg cggaggctat cgccgcggtg cacgcacacc tcaacatgag 8220
174 agaatgaact atggggcttc gctcaccac caaggttcag gttagcggct ggcgttttct 8280
175 gctgcgccgg ctgcaacacg ccacgtgctg ccgggacacc cggatgtttg acgaccgct 8340
176 gcagttctac agccgctcga tgcgtcttgg catcgtcgtc gcggtcctga ttctggcggg 8400
177 tgccgcgctg ctggcgctact tcaaaccaca aggcgaactc ggcggcacca gcctgttcac 8460
178 cgaccgcgcg accaaccagc tttacgtgct gctgtccgga cagttgcac cggctctaaa 8520
179 cctgacttcg gcgcggctgg tgcgtggcaa tccggccaac ccggccaccg tgaagtctc 8580
180 cgaactgagc aagctgccga tgggcccagc cgttggaatc cccggcgccc cctacgccac 8640
181 gcctgtttcg gcgggcagca cctcgatctg gacctatgc gacaccgtcg cccgagccga 8700
182 ctccacttcc ccggtagtgc agaccgcggc catcgcgatg ccgttggaag tcgatgcttc 8760
183 gatcgatccg ctccagtcac acgaagcggg gctggtgtcc taccagggcg aaacctggat 8820
184 cgtcacaact aagggacgcc acgccataga tctgaccgac cgcgccctca cctcgtcgat 8880
185 ggggataccg gtgacggcca ggccaacccc gatctcggag ggcattgttc acgcgtgcc 8940
186 tgatatgggg ccctggcagc tgcgcggat accggcgggg ggcgcgccc attcgtttgg 9000
187 cctacctgat gatctagtga tcggatcggc cttccagatc cacaccgaca agggcccgcg 9060
188 atactatgtg gtgctgccc acggcatcgc gcaggtcaac gcgacaaccg ctgcggcgct 9120
189 gcgcgccacc caggcgcacg ggtggtgcg gccaccggca atggtgccc gtctggtcgt 9180
190 cagaatcgcc gaacgggtat acccctcacc gctaccgat gaaccgctca agatcgtgtc 9240
191 ccggccgcag gatccgcgc tgtgctggtc atggcaacgc agcgcggcg accagtcgcc 9300
192 gcagtcaacg gtgctgtccg gccggcatct gccgatatcg ccctcagcga tgaacatggg 9360
193 gatcaagcag atccacggga cggcgaccgt ttacctcgac ggcggaaaat tcgtggcact 9420
194 gcaatcccc gatcctcgat acaccgaatc gatgtactac atcgatccac agggcggtgcg 9480
195 ttatggggtg cctaaccgcg agacagccaa gtgcgtgggc ctgagttcac cccaaaacgc 9540
196 gccctgggag atcgttcgtc tctggtcga cggtcgggtg ctgtcgaaag atgcgcact 9600
197 gtcgagcac gacacgctgc ccgctgaccc tagccccga aaagtcccg ccggagcctc 9660
198 cggagcccc tgatgacgac caagaagttc actcccacca ttaccgtgg ccccggttg 9720
199 accccggcg agatcagcct cagcgcgcc gatgacctg gcategacat cccaccgtcg 9780

```

RAW SEQUENCE LISTING

DATE: 10/12/2004

PATENT APPLICATION: US/10/510,021

TIME: 16:42:35

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\10122004\J510021.raw

```

200 ggcgtccaaa agatccttcc ctacgtgatg ggtggcgcca tgctcggcat gatcgccatc 9840
201 atggtggccg gcggcaccag gcagctgtcg ccgtacatgt tgatgatgcc gctgatgatg 9900
202 atcgtgatga tggtcggcgg tctggccggt agcaccggtg gtggcgggcaa gaaggtgccc 9960
203 gaaatcaacg ccgaccgcaa ggagtacctg cggtatattg caggactacg cacccgagtg 10020
204 acgtcctcgg ccacctctca ggtggcggtt ttctctacc acgcaccgca tcccagggat 10080
205 ctggttgatg tgcgtggcac ccaacggcag tggtcggcgg ccggccaacgc cgacttctat 10140
206 gcggccaccc gaatcgggat cggtgaccag ccggcgggtg atcgattatt gaagccggcc 10200
207 gtcggcgggg agttggccgc cgccagcgca gcacctcagc cgttcctgga gccggtcagt 10260
208 catatgtggg tggtaagttt tctacgaacc catggattga tccatgactg cccgaaactg 10320
209 ctgcaactcc gtacctttcc gactatcgcg atcggcgggg acttggcggg gccagccggc 10380
210 ctgatgacgg cgatgatctg tcacctagcc gtgttccacc caccggacct gctgcagatc 10440
211 cgggtgctca ccgaggaacc cgacgacccc gactggctct ggctcaaagt gcttcgcgac 10500
212 gtacagcacc agaccgaaac cgatgcggcc gggtccaccc ggctgatctt cacgcgccag 10560
213 gaaggtctgt cggacctggc cgcgcgcggg ccacacgcac ccgattcgct tcccggcgcc 10620
214 ccctacgtag tcgtcgtcga cctgaccggc ggcaaggctg gattcccgcc cgacggtagg 10680
215 gccggtgtca cggtgatcac gttgggcaac catcgcggct cggcctaccg catcagggtg 10740
216 cacgaggatg ggacggctga tgaccggctc cctaaccaat cgtttcgcca ggtgacatcg 10800
217 gtcaccgatc ggatgtcgcc gcagcaagcc agccgtatcg cgcgaaagt ggccggatgg 10860
218 tccatcacgg gcaccatcct cgacaagacg tcgcgggtcc agaagaagg ggccaccgac 10920
219 tggcaccagg tggtcgggtg gcaaagtgtc gaggagataa caccttcccg ctggaggatg 10980
220 tacaccgaca ccgaccgtga ccggtctaaag atcccgtttg gtcataact aaagaccggc 11040
221 aacgtcatgt acctggacat caaagagggc gcggaattcg gcgccggacc gcacggcatg 11100
222 ctcatcgga ccacgggggtc tgggaagtcc gaattcctgc gcacctgat cctgtcgctg 11160
223 gtggcaatga ctcatccaga tcaggtgaat ctctgtctca ccgacttcaa aggtggttca 11220
224 accttctcgg gaatggaaaa gcttcgcgac actgcccgtg tcgtcaccaa catggccgag 11280
225 gaagccgagc tcgtcagccg gatgggcgag gtgttgaccg gagaactcga tcggcgccag 11340
226 tcgatcctcc gacaggccgg gatgaaagt gcgcgcggcc gagccctgtc cggcgtggcc 11400
227 gaatacgaga agtaccgcca acgcggtgcc gacctacccc cgtgccaac gcttttcgtc 11460
228 gtcgtcgacg agttcgccga gctgttgacg agtcacccgg acttcacggt gctgttcgac 11520
229 cggatctgcc gcgtcgggcg gtcgctgagg gtccatctgc tgcgtggtac ccagtgcgtg 11580
230 cagaccggcg gtgttcgcat cgacaaactg gagccaaacc tgacatatcg aatcgattg 11640
231 cgcaccacca gctctcatga atccaaggcg gtaatcggca caccggaggc gcagtacatc 11700
232 accaacaagg agagcgggtg cgggtttctc cgggtcggca tggaaagacc ggtcaagttc 11760
233 agcaccttct acatcagttg gccatacatg ccgcgcggcg caggcgtcga aaccaatggt 11820
234 gaagccggag ggcccgggtc acagaccact agacaagccg cgcgcattca caggttcacc 11880
235 gcggcaccgg ttctcgagga ggcgccgaca ccgtgaccgg cgccggcgac gatgcaaagc 11940
236 gcagcgatga ggaggagcgg cgccaacggc ccgcgcggcg gacgatgcaa agcgcagcga 12000
237 tgaggaggag cggcgcgcat gactgctgaa ccggaagtac ggacgctgcg cgaggttgtg 12060
238 ctggaccagc tcggcactgc tgaatcgctg gcgtacaaga tgtggctgcc gccgttgacc 12120
239 aatccgggtc cgctcaacga gctcatcgcc cgtgatcggc gacaacccct gcgatttgcc 12180
240 ctggggatca tggatgaacc gcgcgcgcat ctacaggatg tgtggggcgt agacgtttcc 12240
241 ggggcggcg gcaacatcgg tattgggggc gcacctcaaa ccgggaagtgc gacgtactg 12300
242 cagacgatgg tgatgtcggc cgccgccaca cactcaccgc gcaacgttca gttctattgc 12360
243 atcgacctag gtggcgggcg gctgatctat ctcgaaaacc ttccacacgt cgggtgggta 12420
244 gccaatcggg ccgagcccga caaggtcaac cgggtggtcg cagagatgca agccgtcatg 12480
245 cggcaacggg aaaccacctt caaggaacac cgagtgggtc cgatcgggat gtaccggcag 12540
246 ctgcgtgacg atccaagtca acccggtgcg tccgatccat acggcgacgt ctttctgatc 12600
247 atcgacggat ggcccggttt tgcggcgag ttcccggacc ttgaggggca ggttcaagat 12660
248 ctggccgccc aggggctggc gttcggcgct cacgtcatca tctccagcc acgctggaca 12720

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/510,021

DATE: 10/12/2004

TIME: 16:42:36

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\10122004\J510021.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application No
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1953 M:283 W: Missing Blank Line separator, <400> field identifier